

PETER DILLERY

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EMPLOYMENT

University of Bonn

Research Assistant

University of Maryland, College Park

Brin Postdoctoral Fellow

Bonn, Germany

October 2025–Present

College Park, MD

2022–2025

EDUCATION

University of Michigan

PhD in Mathematics

Ann Arbor, MI

August 2022

University of Virginia

B.A. in Mathematics, GPA 4.0

Charlottesville, VA

June 2017

PAPERS AND PREPRINTS

1. *A global version of Fargues' construction over function fields* (in progress)
2. *A Tannakian description of the local Kaletha gerbe* (joint with Alexander Bertoloni Meli).
<https://arxiv.org/abs/2601.07042>
3. *Vector bundles on cones over a Fargues-Fontaine curve* (with Kiran Kedlaya). (preprint)
<https://kskedlaya.org/papers/affine-cone.pdf>
4. *Non-basic rigid packets for discrete L -parameters* (with David Schwein). (preprint)
<https://arxiv.org/pdf/2408.13908>
5. *Isocrystals and limits of rigid local Langlands correspondences*. (preprint)
Accepted at **Algebra and Number Theory**,
<https://arxiv.org/abs/2312.09195>
6. *A stacky generalized Springer correspondence and rigid enhancements of L -parameters* (with David Schwein). (preprint)
Under revision at **Journal of the Institute of Mathematics of Jussieu**,
<https://arxiv.org/abs/2308.11752>
7. *Rigid inner forms over global function fields*.
Journal of the Institute of Mathematics of Jussieu, 2025.
<https://arxiv.org/abs/2110.10820>
8. *Rigid inner forms over local function fields*.
Advances in Mathematics, 2023.
<https://arxiv.org/abs/2008.04472>
9. *The canonical join complex for biclosed sets*. (joint with with A. Clifton and A. Garver)[Research done as undergraduate].
Algebra Universalis, 2018.
10. *Minimal-length maximal Green sequences and triangulations of polygons*. (joint with with E. Cormier, K. Serhiyenko, J. Resh, and J. Whelan)[Research done as undergraduate].
Journal of Algebraic Combinatorics, 2016.

SERVICE AND OUTREACH

- University of Bonn
 - Co-organizer of “Learning workshop on metaplectic covers” (working title) (Spring 2026)
- University of Maryland
 - Co-organized number theory and representation theory seminar (Fall 2023–May 2025)
 - Co-organizer for Brin Center workshop “Geometric Approaches to the Local Langlands Program” (\$40,00 budget, March 2025)
 - DC Math Circle (Fall 2024–Present): Taught mathematical enrichment classes to middle-schoolers in the DC area
 - Co-organized RIT seminar on “The stack of Langlands parameters (Spring 2024)
 - Provided lessons for DEI STEM repository at Indiana University Social Roles Laboratory (<https://socialroles.lab.indiana.edu/index.html>) (Spring 2024)
 - Reviewer for MathSciNet (Fall 2023–present)
 - Co-organized Lie groups and representation theory seminar (Fall 2022–Spring 2023)
 - Organized UMD number theory lunch (Spring 2023–Spring 2024)
- University of Michigan
 - Co-supervised project for Michigan REU (Summer 2022)
 - Michigan Math Corps (Fall 2020–Spring 2021): Math outreach/mentoring program for middle-schoolers in Ypsilanti

- Michigan Math Circle (Fall 2019): Taught mathematical enrichment classes to Ann Arbor middle-schoolers
- Co-organizer for student arithmetic geometry learning seminar (Fall 2019)
- Organizer for graduate student and postdoc number theory happy hour (Fall 2020-Spring 2021)

RESEARCH SUPERVISION

- Victor Hernandez Macias, *A modification of Kaletha's gerbe*, Master's thesis at University of Bonn, Fall 2025-present
- Nir Elber, *Representations of Galois gerbes*, Summer REU at UofM, Summer 2022

AWARDS

- Rackham Pre-doctoral Fellowship (Fall 2021-Spring 2022)

TEACHING

University of Maryland, College Park

Instructor of record

- Math 403, Abstract Algebra (Spring 2025)
- Math 405, Abstract Linear Algebra (Fall 2024)
- Math 406, Number Theory (Fall 2022, Spring 2023, Spring 2024)
- Math 120, Business Calculus I [220-person lecture] (Fall 2023)

College Park, MD

Fall 2022- May 2025

University of Michigan

Graduate Student Instructor (GSI)—instructor of record

- Math 116, Calculus II [Primary instructor] (Fall 2019, Fall 2020)
- Math 115, Calculus I [Primary instructor] (Fall 2017-Spring 2019)

Ann Arbor, Mi

Fall 2017- Spring 2022

SELECTED INVITED TALKS GIVEN (OR TO BE GIVEN) IN SEMINARS AND CONFERENCES

- Algebraic Geometry and Number Theory Seminar. Chalmers University, Gothenberg, Sweden. Spring 2026 (Date TBA)
- University of Sheffield Number Theory Seminar. University of Sheffield, Sheffield, UK. December, 2025.
- Canadian Rockies Representation Theory Seminar. University of Calgary. April, 2025.
- Texas Christian University Mathematics Colloquium. April, 2025.
- Séminaire d'arithmétique à l'UMPA de Lyon (ENS Lyon). January, 2025.
- Séminaire Groupes Réductifs et Formes Automorphes, Institut de Mathématiques de Jussieu - Paris Rive Gauche. January, 2025.
- Oberseminar Arithmetische Geometrie und Darstellungstheorie - Max Planck Institute of Mathematics, Bonn, Germany. January, 2025.
- Mini Workshop on Arithmetic and Representations. Yau Mathematical Sciences Center (Tsinghua University), Beijing, China. December, 2024.
- Ramanujan-Serre (Number Theory) Seminar. University of Virginia. November, 2024.
- MIT Lie Groups Seminar. October, 2024.
- Boston College Number Theory/Representation Theory Seminar. October, 2024
- Duke University Number Theory Seminar. October, 2024
- American University Mathematics and Statistics Colloquium. September, 2024
- University of Maryland Number Theory/Representation Theory Seminar, September, 2024
- The Graduate Center (CUNY) Arithmetic Geometry Seminar. March, 2024.
- University of Arizona Number Theory Seminar. April, 2024
- Johns Hopkins Number Theory Seminar. December, 2023.
- University of Maryland Number Theory/Representation Theory Seminar. November, 2023.
- Johns Hopkins Number Theory Seminar. October, 2022.
- University of Maryland Lie Groups and Representation Theory Seminar. September, 2022.
- University of Copenhagen Number Theory Seminar (2 talks). June, 2022.
- MIT Lie Groups Seminar. May, 2022.
- Ramanujan-Serre (Number Theory) Seminar. University of Virginia. March, 2022.
- Junior Number Theory Days. Johns Hopkins. December, 2021.
- Automorphic Project and Research Seminar. October, 2021.
- University of Michigan Number Theory RTG Seminar. September, 2021.
- University of Michigan Number Theory RTG Seminar. August, 2020.

LANGUAGES

English—fluent, Spanish—Fluent reading and advanced speaking, French—fluent reading and intermediate speaking